

REMARKS

Claims 1-6 and 8-9 are pending in the present application. Claim 1 has been amended. No new matter has been introduced.

Claims 1, 2, 4, 6, 8 and 9 are rejected under 35 U.S.C. § 102(b) as being anticipated by U.S. Patent Appl. Pub. No. 2001/0039455 ("Simon"). This rejection is respectfully traversed.

The claimed invention relates to a method of osteochondral repair. As such, amended independent claim 1 recites a "method of osteochondral repair" by *inter alia* "creating a recipient socket in bone having a condylar surface to be repaired" and "selecting an implant from a set of implants to match the condylar surface to be repaired, the set comprising a plurality of preformed implants having different curvatures and contours." Amended independent claim 1 also recites that each of the implants of the set comprises "a cylindrical plug having a first end and a second opposing end, the first and second opposing ends being provided with a first surface and a second opposing surface, respectively, the first surface having a first curvature with a first radius and the second opposing surface having a second curvature with a second radius, the first radius being different from the second radius." Amended independent claim 1 further recites "matching one of the first and second curvatures of the cylindrical plug with the condylar surface to be repaired."

Simon relates to a "cartilage plug, which is made from a biocompatible, artificial material, that is used to fill a void in natural cartilage that has been resected due to traumatic injury or chronic disease." (Abstract). According to Simon, "[t]he plug is prefabricatable in any size, shape, and contour and may be utilized either singly or in a plurality to fill any size void for any application." (Abstract). Simon also teaches that "[t]he plug may be formed of a laminated structure to match the

physiological requirements of the repair site” and that “[a] plurality of anchoring elements may share a single upper layer.” (Abstract).

Simon does not anticipate the subject matter of claims 1, 2, 4, 6, 8 and 9. Simon fails to disclose “selecting an implant from a set of implants . . . comprising a plurality of preformed implants,” where each implant of the set comprises “a cylindrical plug having a first end and a second opposing end, the first and second opposing ends being provided with a first surface and a second opposing surface, respectively, the first surface having a first curvature with a first radius and the second opposing surface having a second curvature with a second radius, the first radius being different from the second radius,” as amended independent claim 1 recites.

Simon teaches a laminated plug formed of three or more layers, which is used to fill a void in cartilage, and not the specific steps of the claimed invention. Simon also teaches that a “plurality of cartilage plugs are used to fill larger void in what is known as a mosaicplasty” (¶[0108]). Simon does not disclose, teach or suggest, however, “selecting an implant from a set of implants . . . comprising a plurality of preformed implants,” where each implant of the set comprises “a cylindrical plug having a first end and a second opposing end, the first and second opposing ends being provided with a first surface and a second opposing surface, respectively, the first surface having a first curvature with a first radius and the second opposing surface having a second curvature with a second radius, the first radius being different from the second radius,” as in the claimed invention.

In the December 20, 2006 Office Action, the examiner asserts that “Simon . . . discloses . . . [a] plurality of preformed implants having different curvatures and contours (paragraphs 0034, 0041, etc.)” (December 20, 2006 Office Action at 2). Although Simon teaches indeed that “the plugs of the present invention may be formed

in any of a large number of different geometric shapes ranging from cylindrical to polyhedral" (§[0041]), Simon does not disclose, teach or suggest that each plug has opposing curvatures with a first and second radius, "the first radius being different from the second radius," as claim 1 recites.

In the December 20, 2006 Office Action, the examiner further asserts that "[A]s seen from paragraphs 0115, 0123, 0127, and 0151, 'the exposed end that is perpendicular to the long axis of the rod is radius faced to match any of a variety of predetermined curved surfaces that match the curve surface of the target articular cartilage that is being replaced' . . . and thus has a different curvature from the flat surface at the opposing end of the implant." (December 20, 2006 Office Action at 2). Applicants point out that the implant described in paragraphs 0115, 0123, 0127, and 0151 of Simon has a curved surface which is opposite a flat surface, and not opposite another curved surface having a radius different from the first curved surface, as in the claimed invention. This is because, in Simon, the laminated plug is cut off from "extruded rods of biocompatible medical grade polyurethane polymer" using a cutoff tool "forming a flat surface of the cylinder identified as surface SB" (§[0115]). Thus, Simon does not disclose, teach or suggest that each plug has opposing curvatures with a first and second radius, "the first radius being different from the second radius," as claim 1 recites. For at least the reasons above, Simon does not anticipate the subject matter of claims 1, 2, 4, 6, 8 and 9, and withdrawal of the rejection of these claims is respectfully requested.

Claims 3 and 5 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Simon. This rejection is respectfully traversed.

Claims 3 and 5 depend on amended independent claim 1 and recite that “the hydrogel implant is secured into the recipient socket by disposing a suture net around the implant” (claim 3) and that “the implant is formed of metal” (claim 5).

The subject matter of claims 3 and 5 would not have been obvious over Simon. Specifically, the Office Action fails to establish a *prima facie* case of obviousness. Courts have generally recognized that a showing of a *prima facie* case of obviousness necessitates three requirements: (i) some suggestion or motivation, either in the references themselves or in the knowledge of a person of ordinary skill in the art, to modify the reference or combine the reference teachings; (ii) a reasonable expectation of success; and (iii) the prior art references must teach or suggest all claim limitations. See e.g., In re Dembiczak, 175 F.3d 994 (Fed. Cir. 1999); In re Rouffet, 149 F.3d 1350, 1355 (Fed. Cir. 1998); Pro-Mold & Tool Co. v. Great Lakes Plastics, Inc., 75 F.3d 1568, 1573 (Fed. Cir. 1996).

In the present case, Simon does not disclose, teach or suggest all limitations of amended independent claim 1 and of dependent claims 3 and 5. As noted above, Simon is silent about “selecting an implant from a set of implants . . . comprising a plurality of preformed implants,” where each implant of the set comprises “a cylindrical plug having a first end and a second opposing end, the first and second opposing ends being provided with a first surface and a second opposing surface, respectively, the first surface having a first curvature with a first radius and the second opposing surface having a second curvature with a second radius, the first radius being different from the second radius,” as claim 1 recites.

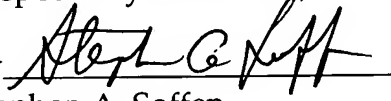
Simon is also silent about “disposing a suture net around the implant” to secure the hydrogel implant into the recipient socket (as claim 3 recites) or about an implant “formed of metal” (as claim 5 recites). In fact, Simon specifically emphasizes

that the cartilage plug is "made from a biocompatible, artificial material" that allows the molding of the biostable polycarbonate polyurethane material into preformed shapes, and also the lamination of different material layers to form the laminated plugs of Simon. (Abstract, ¶[0092]). Simon also teaches that its plugs "may optionally be configured to serve as anchors for a flowable polymer that is subsequently introduced into the cavity." (¶[0095]). Thus, Simon does not disclose, teach or suggest an implant "formed of metal," much less the specific steps for osteochondral repair recited in claim 1 using a metal implant. For at least these reasons, the Office Action fails to establish a *prima facie* case of obviousness and withdrawal of the rejection of claims 3 and 5 is respectfully requested.

Allowance of all pending claims is solicited.

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